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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/617,556	07/17/2000	Douglas P. Hart	MIT-04488	8301

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EXAMINER

BINDA, GREGORY JOHN

ART UNIT

PAPER NUMBER

3629

DATE MAILED: 01/30/2002

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/617,556

Applicant(s)

Hart et al

Examiner

Greg Binda

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on Jan 9, 2002

2a) ☐ This action is **FINAL**.

2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-9, 11-20, 22, and 23 is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-9, 11-20, 22, and 23 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

19) ☐ Notice of Informal Patent Application (PTO-152)

17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

20) ☐ Other:

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1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Objections

2. Applicant is advised that should claim 12 be found allowable, claim 11 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).
3. Claim 12 is objected to because in line 6, "position" should be changed to "positioned".

Claim Rejections - 35 U.S.C. § 102

4. Claims 1, 2, 5-9, 11-13, 16-20 & 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Dahll, US 5,195,757. Fig. 2 shows a seal 10 comprising: a mounting ring 18 attached to a seal ring 14. Figs. 1-3 show that seal ring 14 includes a contact surface 26 comprising: an inner peripheral edge 30; a curved and raised outer peripheral edge 28; and protrusions 36 (see Fig. 3) interior to the outer peripheral edge 28. Figs. 1-3 show that the protrusions 12 are equidistant, identical, of unitary construction and formed of elastomeric material (see also col. 3, line 25). Fig. 1 shows that the contact surface 26 constitutes a first

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surface which forms a seal with a second surface (the outer surface of shaft 12) when the second surface rotates relative to the first surface.

5. Claims 1-9, 22 & 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Zitting, US 4,577,874. Figs. 2 & 9 show a seal 10 comprising a mounting ring 12 attached to an elastomeric (col. 4, liner 12) seal ring 14/130. The seal ring 14/130 comprises a first/contact surface 43 comprising: an inner peripheral edge; a curved outer peripheral edge; and textured features 134, 136, 138 positioned interior to the outer peripheral surface. The textured features comprise cylindrical, identically shaped, equidistant protrusions 134 & 136 having a recess 138. Fig. 2 shows a second surface 49 in contact with the first/contact surface. In col. 4, lines 54-59, Zitting discloses that the second surface oscillates.

6. Claims 1, 2, 4-7, 9, 11-13, 15-18 & 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Blackman et al, US 5,452,771. Fig. 2 shows a seal comprising a mounting ring 43 attached to an seal ring 30. Fig. 4B shows the seal ring 130 comprises a contact surface comprising: an inner peripheral edge; a raised curved outer peripheral edge; and textured features 132 positioned interior to the outer peripheral surface. The textured features comprise cylindrical, identically shaped, equidistant protrusions 132.

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Claim Rejections - 35 U.S.C. § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zitting. Zitting shows a seal comprising all the limitations of the claims but does not expressly disclose the outer peripheral edge as raised. However, applicant has not disclosed any improvement in the sealing function of a seal by raising the outer peripheral edge. Therefore, it would have been obvious to modify the seal of Zitting by raising the outer peripheral edge since such a modification would have involved a mere change in the shape of the outer peripheral edge. A change in shape is generally recognized as being within the level of ordinary skill in the art. *In re Dailey*, 105 USPQ 237 (CCPA 1955).

Double Patenting

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

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A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claim 22 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-46 of U.S. Patent No. 6,105,968. Although the conflicting claims are not identical, they are not patentably distinct from each other because a seal assembly comprising every limitation in the instant claim is already covered by the patented claims.

Response to Arguments

11. Applicant's arguments filed Jan 9, 2002 have been fully considered but they are not persuasive. Applicant argues that Dahll fails to show the claimed invention because mounting ring 18 is not attached to seal ring 14. However, Fig. 2 clearly shows mounting ring 18 attached to seal 14. Note also in col. 2, lines 40 & 41 where mounting ring 18 is expressly disclosed as being disposed within (i.e. attached to) seal ring 14.

Conclusion

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12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Diffenderfer & Nakano show seals.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Binda whose telephone number is (703) 305-2869. The examiner can normally be reached Tuesday through Friday from 9:30 am to 7:00 pm. The examiner can also be reached on alternate Mondays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne, can be reached on (703) 308-1159. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 306-4195, 305-3597 and 305-7687.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2168.



Greg Binda
Patent Examiner